Phylogenetic analysis of influenza A(H1N1)pdm09 HA genes

23/24 vaccine strain in Japan

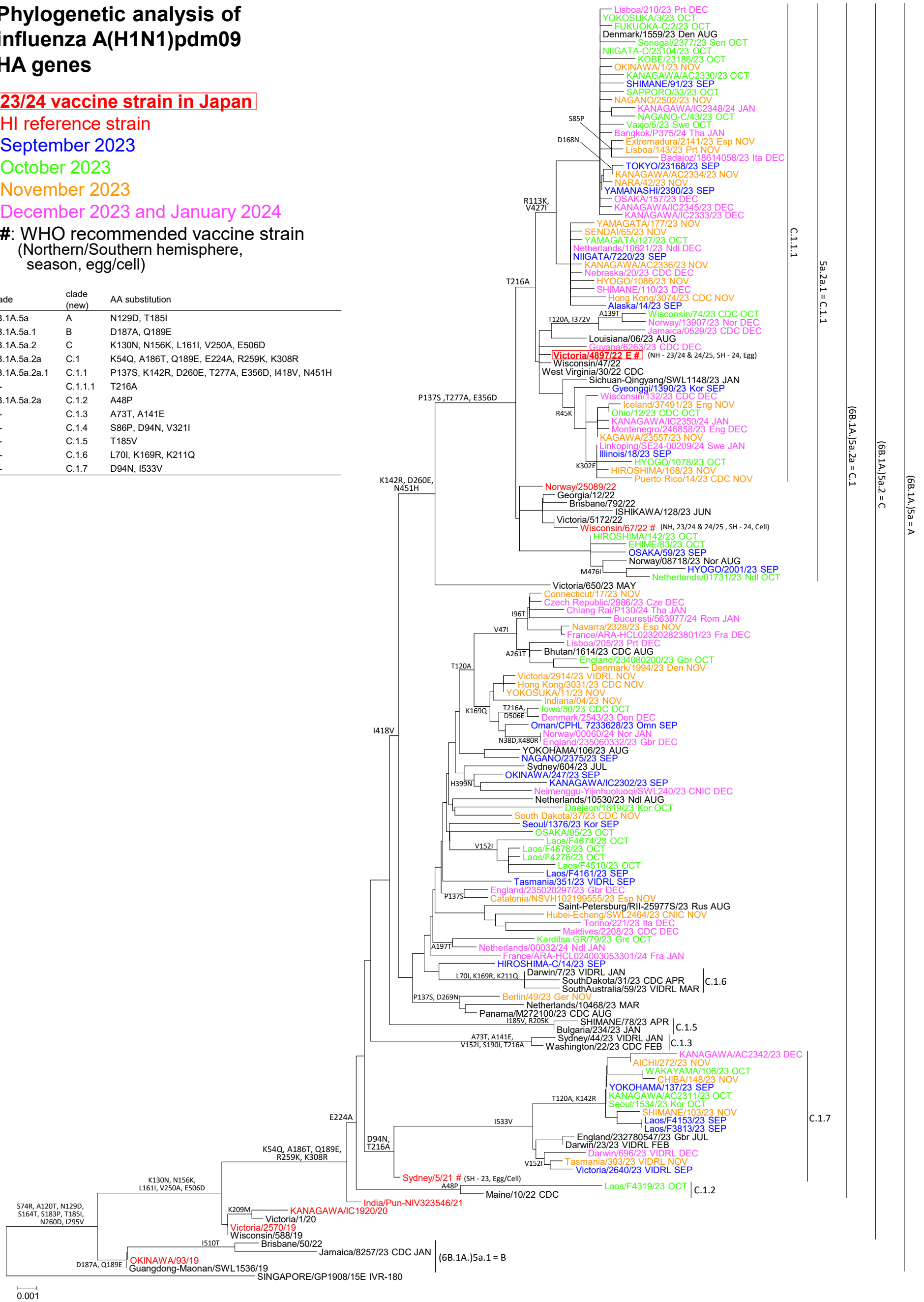
HI reference strain

September 2023

October 2023

November 2023

December 2023 and January 2024

#: WHO recommended vaccine strain
(Northern/Southern hemisphere, season, egg/cell)

clade	clade (new)	AA substitution
6B.1A.5a	A	N129D, T185I
6B.1A.5a.1	B	D187A, Q189E
6B.1A.5a.2	C	K130N, N156K, L161I, V250A, E506D
6B.1A.5a.2a	C.1	K54Q, A186T, Q189E, E224A, R259K, K308R
6B.1A.5a.2a.1	C.1.1	P137S, K142R, D260E, T277A, E356D, I418V, N451H
-	C.1.1.1	T216A
6B.1A.5a.2a	C.1.2	A48P
-	C.1.3	A73T, A141E
-	C.1.4	S86P, D94N, V321I
-	C.1.5	T185V
-	C.1.6	L70I, K169R, K211Q
-	C.1.7	D94N, I533V